

Before the  
**FEDERAL COMMUNICATIONS COMMISSION**  
 Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION  
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 In the Matter of )

 FWCC Request for Declaratory Ruling on )  
 Partial-Band Licensing of Earth )  
 Stations in the Fixed-Satellite Service )  
 That Share Terrestrial Spectrum )

 IB Docket No. 00-203  
 RM-9649

 )  
 Onsat Petition for Declaratory Order that )  
 Blanket Licensing Pursuant to Rule 25.115(c) )  
 Is Available for Very Small Aperture )  
 Terminal Satellite Network Operations at C- )  
 Band )

SAT-PDR-19990910-00091

 )  
 Ex Parte Letter Concerning Deployment of )  
 Geostationary Orbit FSS Earth Stations in the )  
 Shared Portion of the Ka-band )  
 )

**REPLY COMMENTS OF TELEDESIC LLC**

The initial round of comments in this proceeding<sup>1</sup> has revealed overwhelming support for maintaining full-band, full-arc licensing of fixed-satellite service ("FSS") earth stations; universal disparagement of the Commission's "demonstrated use" proposal; and little support for any other change to the Commission's current rules governing shared fixed-satellite and terrestrial spectrum. The Commission, therefore, should do absolutely nothing in this rulemaking, other than bring it to a swift conclusion. If changes are nevertheless adopted, or even if this matter will remain open for a few months while the Commission weighs its options,

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<sup>1</sup> Notice of Proposed Rulemaking, FCC 00-369, IB Docket No. 00-203, RM- 9649, SAT-PDR-1999-0910-00091 (rel. Oct. 24, 2000), ¶ 40 (hereinafter "NPRM").

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Teledesic again urges the Commission to clarify immediately—within the next month or two—that the rule changes proposed for the C and Ku bands will in no way apply to bands above 17.7 GHz.

**I. The Comments Reveal Unanimous Opposition to the Commission's Proposals.**

Not a single commenting party has voiced support for the Commission's "demonstrated use" proposal.<sup>2</sup> Even the Fixed Wireless Communications Coalition ("FWCC") admits that the Commission's proposal "unavoidably" raises serious questions. Among them: how to account for an earth station's need for intermittent use of spectrum, how to account for an earth station's need to access varying transponders and satellites, and how to quantify an earth station's degree of commitment to future use, among other issues.<sup>3</sup> The Commission should pay close attention to the FWCC's analysis of the Commission's own "demonstrated use" proposal:

[T]he satellite industry may rightfully object that the Commission's plan does not allow an earth station adequate control over its back-up capacity to provide for transponder or satellite failure. The Notice properly raises the issue of "non-routine" need for frequency diversity on the part of FSS operators, yet the Commission's plan would require an FS operator to be given any unused frequency on request, after two years. This would leave an earth station operator no way to reserve specific transponder bands for back-up.<sup>4</sup>

For good reason, then, the FWCC joins the overwhelming chorus of comments concluding that the "demonstrated use" proposal is seriously flawed.

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<sup>2</sup> In fact, only the comments of Pinnacle Telecom Group could possibly be read to support the proposed changes, and Pinnacle's proposal to annihilate the full-band, full-arc licensing scheme in its entirety, see PTG Comments at 4, is so extreme, and betrays so fundamental a misunderstanding of the basic operational requirements of FSS earth stations, that it can and should be rejected out of hand.

<sup>3</sup> See FWCC Comments at 11.

<sup>4</sup> See *id.* at 9 (citation omitted).

The Commission's proposed coordination requirements are similarly cumbersome and unnecessary. The FWCC's desire for paperwork-intensive, detailed regulation of the coordination regime appears to stem from their assertion that incumbent FSS licensees are free to deny coordination by disregarding berms, buildings, and/or frequency offsets on which they may have relied in obtaining their own licenses.<sup>5</sup> This is a solution in search of a problem. As PTG noted, this is already a long-standing industry practice<sup>6</sup> that is not in need of Commission oversight.

The FWCC also argues that cumulative interference is not a "realistic" concern under the proposed coordination requirements. This argument rests on a single hypothetical example: if an earth station accepts a 75 dB interference case, and then a subsequent FS provider seeks to install a transmitter that will also be 75 dB above the objective, the resulting cumulative interference will not be 150 dB, it will be 78 dB.<sup>7</sup> But the FWCC has no basis for concluding that even the lower cumulative interference is acceptable,<sup>8</sup> nor does the FWCC explain why the earth station operator—who presumably accepted the prior case of interference only because of an FS licensee's date priority—should not have the benefit of date priority *vis-à-vis* a later FS licensee in a second coordination.

Twice now, the Commission has asked the public to comment on proposals to eliminate or modify full-band, full-arc licensing and coordination of FSS earth stations. And twice now, the record has shown no evidence of a problem and almost no support for any "solution."

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<sup>5</sup> See *id.* at 17.

<sup>6</sup> See PTG Comments at 3.

<sup>7</sup> See FWCC Comments at 20.

<sup>8</sup> In fact, a 3 dB increase in interference could cause a link to go below its availability threshold and would, in such a case, be clearly unacceptable.

## II. The FWCC's "Alternative" Proposal Bears An Uncanny Resemblance to the FWCC's Initial Proposal.

The FWCC's "alternative" proposal appears to be nothing more than a tarted-up version of the FWCC's original proposal. In its initial Petition for Rulemaking,<sup>9</sup> the FWCC proposed that an FSS earth station be licensed for no more than twice the amount of bandwidth "*actually needed*;" under this proposal, an earth station using less than half its licensed bandwidth *after 30 months* would have to modify its license to reduce the bandwidth to twice the actual load.<sup>10</sup> The FWCC's new proposal advocates that an FSS earth station be licensed for no more than twice its amount of "*projected need*;" under this proposal, an earth station using less than half its licensed bandwidth *after 24 months* would have to modify its license to reduce the bandwidth to twice the actual load.<sup>11</sup>

The FWCC's proposed alteration—that an earth station be allowed to obtain an initial license based on "projected" need rather than "actual" need—is like the proverbial lipstick on the pig.<sup>12</sup> Since the controversy is precisely about the flexibility that satellite operators need in order to deal with constant and sometimes sudden changes some 36,000 kilometers above the Earth, neither projections of need nor the actual historical use on which the projections are based can possibly be a sound basis for constraining earth station operations. The only other material alteration of the FWCC proposal appears to be the FWCC's acceptance of the

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<sup>9</sup> See *Request for Declaratory Ruling and Petition for Rulemaking of the Fixed Wireless Communications Coalition*, RM-9649 (filed May 5, 1999) (hereinafter "FWCC Petition").

<sup>10</sup> FWCC Comments at 6.

<sup>11</sup> See FWCC Comments at 10-11.

<sup>12</sup> Former Texas Gov. Ann Richards once rejected the Texas Legislature's attempts to pass previously vetoed legislation with the observation, "You can put lipstick on a pig, give her a purse, and call her 'Monique,' but it's still a pig."

Commission's proposal to shorten earth stations' grace periods from 30 months to 24 months<sup>13</sup>—hardly a concession to Reason.

Moreover, as explained above, the FWCC joins the satellite-industry commenters in concluding that “demonstrated use” raises unavoidable and intractable questions regarding the definition of “use.”<sup>14</sup> In fact, the “alternative” proposal raises virtually identical questions. Specifically, how will the FWCC “alternative” proposal account for an earth station operator's need for intermittent use of spectrum? How will it account for an earth station operator's need to access varying transponders and satellites? How will it quantify an earth station operator's degree of commitment to future use? The FWCC doesn't even attempt to explain why allotting double the spectrum used at the 24-month benchmark is sufficient to allow earth station operators the necessary operational flexibility to respond to emergencies, to respond to changing demand for and availability of particular transponders and satellites, or even simply to grow their businesses.

The original FWCC proposal and the so-called “alternative” proposal share the same fundamental flaws, ignoring the technical and operational distinctions that require FSS earth stations to be licensed differently than terrestrial services. Despite the FWCC's complaints of imagined unfairness, neither an “actual need” nor a “demonstrated use” rule is appropriate for FSS earth stations, and no change should be made.

### **III. The Commission Should Clarify Immediately that these Proposals Do Not Apply to Bands Above 17.7 GHz.**

No party has argued specifically in favor of extending the proposed regulations beyond the C and Ku bands, and no justification exists for doing so. To the contrary, there are valid,

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<sup>13</sup> See FWCC Comments at 10 & n.13.

significant reasons why these proposals should *not* apply to the Ka band, as various commenting parties have made clear. SIA, for example, correctly notes that Ka-band and higher frequency satellite systems have technical and operational characteristics that preclude a “demonstrated use” requirement.<sup>15</sup> TRW similarly notes that all of the proposals are especially ill-suited for bands above the Ku band, where most satellite systems will employ wideband transponders sending packets at different intervals within time-division multiplex (TDM) signals that occupy the full band.<sup>16</sup> Astrolink concludes that these proposals could undermine the viability of new broadband satellite systems in the Ka band and higher frequencies,<sup>17</sup> and as Teledesic previously noted, these proposals are wholly inappropriate for segmented bands such as the Ka band.<sup>18</sup> Even Winstar urges the Commission not to extend its proposals into the Ka band.<sup>19</sup> Given the unanimity on this point, the Commission should quickly – within a month or two – declare in a First Report and Order that under no circumstances will the proposals in this proceeding be applied outside the C and Ku bands.

## CONCLUSION

In the end, the Commission itself seems uncertain whether the problem that this rulemaking purports to remedy is real or imagined.<sup>20</sup> The record certainly does not establish that any real problem exists. Furthermore, the proposals clearly impinge on the operational flexibility required by FSS earth stations while increasing regulatory burdens on both classes of licensees as well as the Commission. For these reasons, the proposals should be withdrawn. In

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<sup>14</sup> See *id.* at 11.

<sup>15</sup> See Comments of SIA *et al.* at 35.

<sup>16</sup> See TRW Comments at 14-16.

<sup>17</sup> See Astrolink Comments at 4.

<sup>18</sup> See Teledesic Comments at 2-3, 6-7. See also TRW Comments at 15-16; Winstar Comments at 2.

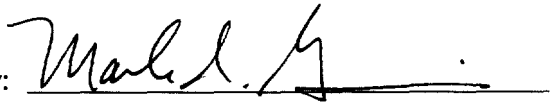
<sup>19</sup> See Winstar Comments, *passim*.

<sup>20</sup> See NPRM at ¶ 30.

addition, regardless of whether the proposals are ever implemented in shared bands, the Commission should immediately—within the next month or two—issue a *First Report and Order* clarifying that under no circumstances will the proposed changes apply in the Ka band.

Respectfully submitted,

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